



# Universal Waste Rule for Batteries and Mercury-Containing Thermostats

## WAC 173-303-573

*Ecology Fact Sheet*

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The Universal Waste Rule is a federal rule that the Environmental Protection Agency (EPA) adopted in May 1995 for three types of waste. Universal wastes are certain dangerous wastes that are frequently generated, and that can be managed appropriately under less stringent regulatory requirements. They are generated by many types of generators and are considered to be less hazardous than other wastes. The federal rule set forth some reduced waste management standards for batteries, thermostats, and pesticides. For example, they do not have to be manifested or counted. Ecology adopted two categories of universal waste, batteries and mercury-containing thermostats in the Dangerous Waste Regulations at WAC 173-303-573 in February 1998. Washington did not adopt the third category of universal waste that is available through the EPA rule, waste pesticides. Waste pesticides remain subject to the designation and full management requirements of the Dangerous Waste Regulations.

Ecology also adopted a petition process in 1998. Through this process other wastes can be added to the Universal Waste Rule if they meet certain criteria. If a petition to add other wastes is approved by Ecology, they will be added as universal wastes in future rulemakings. In June 2000, Ecology adopted the Universal Waste Rule for lamps. The state rule differs somewhat from the federal rule. See Ecology publication # 00-04-020, *Universal Waste Rule for Dangerous Waste Lamps WAC 173-303-573* for more information.

The three most significant areas of relief for universal wastes are:

- The waste does not need to be counted toward waste generation totals to determine generator status.
- The waste does not need to be manifested when sent off-site.
- Both the accumulation limit and length of time the waste may be accumulated have been increased.

It is important to note that universal wastes must go to a treatment, storage, disposal, (TSD) or recycling facility.

## Universal Waste Categories

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**Batteries-** All batteries that are hazardous waste should be managed as universal waste except for spent lead-acid batteries (typically automobile batteries). Spent lead-acid batteries may continue to be managed under the lead-acid battery exemption at WAC 173-303-520.

Generators are encouraged to segregate their batteries by type because all batteries are not managed in the same way. For instance, nickel cadmium batteries can be recycled to recover their metal content. A recycler may not accept them if they are mixed with alkaline or other batteries.

Other types of batteries include alkaline, mercuric-oxide, alkaline-manganese, zinc-carbon, button cell mercuric-oxide, silver oxide, and lithium. These should all be managed under the universal waste requirements. Consumer products that contain difficult-to-remove rechargeable batteries should also be managed as universal waste.

Are alkaline batteries a hazardous waste? Alkaline batteries have been shown to designate for their mercury content and also for the state-only criteria as solid corrosive waste. The mercury content in batteries has been decreasing due to changes in manufacturing, but the alkaline batteries continue to designate as a solid corrosive waste. A generator can always test batteries to determine whether they designate. However, alkaline batteries should be managed as universal waste unless test results show that they are not hazardous.

**Mercury-containing Thermostats-** Thermostats that contain mercury should be managed as universal waste. This does not include all mercury switches. A thermostat is a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element. Ampules removed from these thermostats should also be managed under the universal waste requirements. Other types of mercury switches must be managed according to all applicable dangerous waste requirements.

**Lamps-** The following are types of lamps that should be managed as universal waste unless you have information that shows that these lamps are not dangerous waste: fluorescent tubes, compact fluorescent, HID lamps (mercury vapor, metal halide, high pressure sodium), neon lamps, and any other lamps that are dangerous waste. (See Ecology Publication # 00-04-020 for more information.)

## Universal Waste Handler Requirements

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A universal waste handler is either the generator of the waste or a collector/consolidator. There are two categories of universal waste handlers - Small Quantity Handlers of Universal Waste (SQHUW) and Large Quantity Handlers of Universal Waste (LQHUW). SQHUW may accumulate up to 11,000 pounds of all universal waste categories combined, except for lamps, which have a 2,200-pound accumulation limit. When a handler exceeds 11,000 pounds (or 2,200 pounds for lamps), they become a LQHUW and are subject to extra requirements.

**Both SQHUW and LQHUW must:**

- Label or mark wastes. For example, "universal waste - batteries" or "waste mercury thermostats."
- Limit accumulation to one year from the date first generated, or received from another handler.
- Manage wastes to prevent releases to the environment.
- Immediately contain releases and handle residues appropriately (as solid or as hazardous waste). If residues are hazardous, manage them in accordance with all applicable requirements of the Dangerous Waste Regulations.
- Follow procedures for handling batteries and removing mercury-containing ampules from thermostats.
- Send or take universal waste to another handler who is acting as a collection center (with their prior agreement), a destination facility (TSD or recycler), or a foreign destination.
- Ensure that the receiving facility (collection center or destination facility) will accept the load before it is sent. If rejected, the original handler must accept the waste back, or both parties may agree on a new destination.
- Follow the export notification procedures for foreign destinations.
- Provide employee training. LQHUW must ensure that employees are familiar with waste handling and emergency procedures. SQHUW must distribute basic handling and emergency information.

**Additional Large Quantity Handler (LQHUW) requirements:**

- Maintain basic records to track waste shipments. Records may be in the form of a log, invoice, manifest, bill of lading, or other shipping document. They must be maintained for three years and must include names, addresses, quantity and types of wastes, and shipment dates.
- Notify Ecology and obtain a RCRA ID number. Handlers who anticipate accumulating 11,000 pounds or more of universal waste at any one time (or 2,200 pounds for lamps) must submit a one-time written notification and receive a RCRA ID number before exceeding the accumulation limit. Note: LQHUW status is maintained through the end of the calendar year in which 11,000 pounds or more of universal waste is accumulated.

**Prohibitions for All Handlers**

Handlers may not dilute, dispose, or treat universal wastes. There are two exceptions.

Routine battery management activities. The following routine battery management activities are not considered treatment: sorting batteries by type, mixing battery types in one container, discharging batteries, regenerating used batteries, disassembling battery packs, removing batteries from discarded consumer products, and removing electrolyte. These are acceptable battery management practices provided the casing of each battery cell is not breached and remains intact and closed. Cells may be opened to remove electrolyte, but must be closed immediately after removal.

Removing mercury-containing ampules from thermostats. The handler of the waste can remove mercury-containing ampules. Detailed directions regarding removing mercury ampules may be found in the rule itself.

**Collection Centers/Consolidation Points-**

A collection center receives universal waste from other universal waste handlers (generators), consolidates it, and sends it to a treatment, storage, disposal or recycling facility (destination facility). The collection center must comply with the appropriate set of LQHUW or SQHUW requirements based on the amount of universal wastes that is collected on site.

A permitted treatment, storage or disposal (TSD) facility may be a collection center for universal wastes that it consolidates and sends on to a destination facility. The TSD must comply with the appropriate LQHUW or SQHUW requirements. A TSD may not collect universal wastes as a universal waste handler if it is the destination facility. It is considered the destination facility if it treats, disposes of, or recycles that particular category of universal waste.

## Small Quantity Generator (SQG) Waste

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Small quantity generators may manage their batteries, mercury containing thermostats, and lamps under either the Universal Waste Rule or in accordance with the SQG requirements. However, if SQG or household hazardous waste batteries, thermostats, and lamps are commingled with universal waste from medium or large quantity generators, the commingled waste is considered hazardous waste and must be managed as universal waste.

## Satellite Accumulation

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Universal wastes may not be satellite accumulated. The key distinction between satellite accumulation and accumulation of universal waste pertains to the accumulation start date. For universal waste, the generator must mark or label the container to document the first date of accumulation of an item at each location. Universal wastes can only be accumulated for one year from that date. The location, or number of locations (points of generation), at which universal wastes are accumulated is not limited.

## Transporter Requirements

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A universal waste transporter is a person who is engaged in the off-site transportation of universal waste by air, rail, highway, or water.

- Universal waste must be managed in compliance with all applicable U.S. Department of Transportation (DOT) regulations. Applicable DOT requirements apply if a universal waste meets the definition of hazardous materials under 49 CFR 171-180.
- No hazardous waste manifest is required unless the waste is transported through a state where the waste is not regulated as a universal waste.
- Handlers may transport their own waste and must follow transporter requirements.
- Transporters may not dispose, dilute, or treat universal waste.
- Universal waste may be stored for up to ten days at transfer facilities (for example, loading dock, parking area, or storage area) during the normal course of transportation.
- Releases must be contained and residues handled appropriately.
- Universal waste must only be transported to a universal waste handler acting as a collection center (through prior agreement), a destination facility, or a foreign destination (export requirements must be followed).

## Destination Facilities

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Destination facilities are facilities that treat, dispose of, or recycle universal waste. They must meet all Dangerous Waste Regulation requirements for treatment, storage, disposal (TSD) facilities (sections 800 through 840) or recycling facilities (section 120(4)(c)), except for manifesting. If universal waste is only accumulated at a facility because that facility is generating the waste or acting as a collection center, it is not a destination facility for purposes of managing that category of universal waste. Such a facility must comply with the appropriate universal waste handler requirements. Destination facilities must retain the same records for receipt of universal waste shipments as those kept by Large Quantity Handlers of Universal Waste (LQHUW). A destination facility may reject a shipment by shipping the waste back to the original shipper or both may agree to a new destination facility.

## Glossary

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Several terms, or definitions, were added to the regulations with the adoption of the Universal Waste Rule. Definitions were added for the following: battery, destination facility, lamps, large quantity handler of universal waste, small quantity handler of universal waste, thermostat, universal waste, universal waste handler, universal waste transfer facility, and universal waste transporter. Many of these terms have been described in the above discussion. A few are defined below.

"Universal waste handler" means a generator of universal waste; or the owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

"Small quantity handler of universal waste" means a universal waste handler who does not accumulate 11,000 pounds or more total of universal waste (batteries, thermostats, and lamps, calculated collectively) and/or who does not accumulate more than 2,200 pounds of lamps at any time.

"Large quantity handler of universal waste" means a universal waste handler who accumulates 11,000 pounds or more total of universal waste (batteries, thermostats, and lamps calculated collectively) and/or who accumulates more than 2,200 pounds of lamps at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 11,000 pounds or more total of universal waste and/or 2,200 pounds of lamps is accumulated.

## For More Information

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Questions on this topic may be directed to your nearest regional office Dangerous Waste Specialist. A list of offices and their phone numbers is shown below:

Northwest Region - Bellevue	(425) 649-7000
Southwest Region - Olympia	(360) 407-6300
Central Region -Yakima	(509) 575-2490
Eastern Region - Spokane	(509) 456-2926
Nuclear Waste - Kennewick	(509) 736-5718
Industrial Section - Olympia	(360) 407-6000